

## ASSESSOR CERTIFICATION STUDY MATERIAL

The study material consists of Chapters from Volume 1 of the Wisconsin Property Assessment Manual, Chapter 70 and the Property Assessment Appeal Guide. The study material is primarily for the Technician and Assessor 1 certification exams. If you are planning to challenge the Assessor 3 exam, please refer to management textbook(s) containing information on management techniques, the development of personnel and budget policies.

To assist you in studying, we have posted sample quizzes at the following link:

<http://www.revenue.wi.gov/training/assess/quiz.html>

The suggested study material should **NOT** be used as the sole source used to study for the exams.

Additional suggested resource material includes the following:

- Wisconsin Property Assessment Manual, Volume 1
- Property Appraisal & Assessment Administration (IAAO)
- Math Texts (Basic math including fractions, decimals, percentages, areas, and ratios)
- The Appraisal of Real Estate 9th Ed. (Appraisal Institute)
- The Appraisal of Rural Property (Appraisal Institute)
- Appraising Residential Properties (Appraisal Institute)
- Income Property Valuation (Kinnard)
- Fundamentals of Land Measurement (J.S. Hoag)
- Real Estate Appraisal Terminology (Appraisal Institute)
- Encyclopedia of Real Estate Appraisal (E.J. Friedman)
- Property Assessment Valuation (IAAO)
- Any management text containing information on project planning, budget policies, general supervision and management, development of personnel, and assessment administration.

## Exam Content By Level

	Assessment Technician	Property Appraiser	Assessor 1	Assessor 2	Assessor 3
Math	42	10	4	0	0
Legal Description	28	20	30	16	0
Construction Terms	15	25	22	22	0
Law	15	20	100	74	50
Appraisal	0	25	44	88	25
Administration	0	0	0	0	125
Total Questions	100	100	200	200	200
Completion Time	2 Hours	2 Hours	4 Hours	4 Hours	4 Hours

## 2008 CERTIFICATION EXAM STUDY MATERIAL

Bureau of Assessment Practices  
Wisconsin Department of Revenue

Exam questions related to Wisconsin property assessment law are primarily based on Chapter 70 of the Wisconsin Statutes. Please download Chapter 70 from the following link:

<http://www.legis.state.wi.us/statutes/Stat0070.pdf>

EXAM SUBJECT	STUDY MATERIAL
Math	See sample math questions
Building Construction Terms	Glossary <a href="http://www.revenue.wi.gov/training/assess/08glossr.pdf">http://www.revenue.wi.gov/training/assess/08glossr.pdf</a>
Law	Chapter 4 – Dates Governing Assessment <a href="http://www.revenue.wi.gov/training/assess/08chap04.pdf">http://www.revenue.wi.gov/training/assess/08chap04.pdf</a>  Chapter 70 <a href="http://www.legis.state.wi.us/statutes/Stat0070.pdf">http://www.legis.state.wi.us/statutes/Stat0070.pdf</a>  Property Assessment Appeal Guide <a href="http://www.revenue.wi.gov/pubs/slf/pb055.pdf">http://www.revenue.wi.gov/pubs/slf/pb055.pdf</a>
Legal Descriptions	Chapter 5 Real Property Assessment – General <a href="http://www.revenue.wi.gov/training/assess/08chap05.pdf">http://www.revenue.wi.gov/training/assess/08chap05.pdf</a>
Appraisal	Chapter 7 Real Property Valuation <a href="http://www.revenue.wi.gov/training/assess/08chap07.pdf">http://www.revenue.wi.gov/training/assess/08chap07.pdf</a>  Chapter 8 Residential Property Valuation <a href="http://www.revenue.wi.gov/training/assess/08chap08.pdf">http://www.revenue.wi.gov/training/assess/08chap08.pdf</a>  Chapter 16 Valuation of Fixed Assets <a href="http://www.revenue.wi.gov/training/assess/08chap16.pdf">http://www.revenue.wi.gov/training/assess/08chap16.pdf</a>

## SAMPLE MATH PROBLEMS

### I. Determining Areas and Volumes

- |                  |  |
|------------------|--|
| 1. Rectangle     | $\text{length} \times \text{width} = \text{area}$                        |
| 2. Square        | $\text{length} \times \text{width} = \text{area}$                        |
| 3. Cubic         | $\text{length} \times \text{width} \times \text{height} = \text{volume}$ |
| 4. Triangle      | $\text{base} \times \text{height} \div 2 = \text{area}$                  |
| 5. Parallelogram | $\text{base} \times \text{height} = \text{area}$                         |
| 6. Circle        | $\pi \times r^2 = \text{area}$   |
|                  | $2 \pi r = \text{circumference}$   |

### II. Ratios

- |                     |   |  |
|---------------------|---|--|
| 1. Assessment Ratio | = | $\frac{\text{Assessed value}}{\text{Selling price of property}}$                     |
| 2. Perimeter Ratio  | = | $\frac{\text{Square feet of ground area}}{\text{Lineal feet of building perimeter}}$ |

### III. Algebraic ( Example - pricing a home)

Formula = length x width x cost per sq. Foot = cost of building house.

### IV. Basic Math Functions and Order of Operations

Find **s** in each of the equations

$$(s + 25) \div 2 - 100 \times 10 = 5 \quad \text{Solution (s = 1985)}$$

$$s \times 4 + 300 \div (10 - 20) = 14 \quad \text{Solution (s = 11)}$$

### V. Word Problems

Example: If two masons can lay 120 bricks per day, how many bricks can be laid by three masons in five days?

$$\text{Answer} = 3 \times 60 \times 5 = 900 \text{ bricks}$$

1. What does it cost to cover the floor of a recreation room 20 feet by 35 feet if the linoleum is \$2.65 a square yard?
2. How many acres are in a rectangular field with a frontage of 565 yards and a depth of 420 yards? (43,560 sq. Ft. = 1 acre)

3. The base length of a truss is 45 feet and the height of it is 8 feet. What is the size of the area enclosed by the truss?
  
4. A legal description, when drawn out, is a parallelogram. The road frontage of the property is 100 lineal feet and the distance from the road to the back line of the property is 245 feet. What is the area of the legal description?
  
5. Farmer A constructs a 70-foot high Harvestor silo. The radius of the concrete footing for the silo is 15 feet. Farmer B constructs a 90-foot high Rochester concrete stave silo. The diameter of the silo is 35 feet. Farmer C constructs a 65-foot high stave silo. Its concrete footing has a circumference of 70 feet. What ground area does each of these silos cover?
  
6. Mr. Smith owns a grocery store. In order to handle all of his new business, he has to build an addition onto his current store. The addition measures 40 feet wide by 30 feet long. The height of the addition is 12 feet. How many cubic feet of volume are in the addition?
  
7. A contractor orders the following for framing a garage:
  - 40 studs, 2" x 4 " x 8'
  - 6 sills, 2" x 4" x 20'
  - 6 plates, 2" x 4" x 20'
  - 26 rafters, 2" x 4" x 14'
  - 65 pc. 1" x 6" x 22' for sheathing.

With a per board foot cost of \$2.50, what is the total cost of this order?

8. Mr. Jones is the assessor for the town of XYZ. He wanted to find out what his level of assessment was, so he decided to analyze the sales that had occurred in his district. These are the sales:

<b>Sale</b>	<b>Sale Amount</b>	<b>Assessment</b>
A	145,000	101,500
B	86,000	43,000
C	235,000	70,650
D	179,400	152,490
E	364,900	164,205

Based on the above information, what is the mean, median, and aggregate assessment ratios for Town XYZ?

9. As an assessor, you obtain the following cost information from a local contractor:

<b>Item</b>	<b>Cost</b>
Drywall	.40 per sq. ft.
Insulation	.38 per sq. ft.
Plywood	.42 per sq. ft.
Carpet Padding	.25 per sq. yd.
Carpet	10.99 per sq. yd.
Linoleum	8.99 per sq. yd.
Paneling	1.50 per sq. ft.
Paint	10.00 per gallon
Nails	.59 per lb.

Mr. Brown plans to finish off his basement and he finds that he needs the following: 595 sq. ft of drywall, 595 sq. ft of insulation, 300 sq. ft. of paneling, 2 gallons of paint, 10½ lbs. of nails, 4 sq. yds of plywood, 810 sq. ft. of carpet and padding and 10 sq. yds. of linoleum. What is the total cost of the required materials?

10. How many sheets of metal, each  $\frac{1}{32}$ " thick, are there in a pile  $12\frac{7}{8}$ " high?
11. How many flooring boards, each  $3\frac{1}{5}$ " wide are there in the width of a corridor 5'5" wide?

### Math Problems (Solutions)

- (1) \$206.11
- (2) 49.03 acres
- (3) 180 sq. ft.
- (4) 24,500 sq. ft.
- (5) A. 706.86 sq. ft  
B. 962.11 sq. ft  
C. 389.93 sq. ft
- (6) 14,400 cu. ft.
- (7) \$3,327.50
- (8) mean = 56%  
median = 50%  
aggregate ratio = 53%
- (9) \$2,056.92
- (10) 412
- (11)  $20 \frac{5}{16}$  or 20.3125